

What is claimed is:

1. A stopper assembly for sealing an opening of a vessel comprising:
    - 5 a screw stem body having a tapered head;
    - an elastic element fitted over a portion of the body;
    - a retention housing fitted over the body and jacket, the retention housing retaining the jacket from lateral displacement there through; and
    - a turning nut attached to the retention housing and threaded to the
    - 10 screw stem body;characterized in that a user inserts the stopper assembly into a vessel opening, holds the retention housing stable, and turns the turning nut causing travel of the threaded body through the retention housing and deformation of the elastic jacket against the tapered head, deformation
  - 15 thereof directed radially outward to make peripheral contact with the inner surface of the opening affecting a seal of the opening.
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2. The assembly of claim 1 wherein the elastic jacket is a rubber sleeve having a flared end and deformation occurs when the tapered surface of the
  - 20 tapered head is forced against the flared portion of the sleeve.
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3. The assembly of claim 1 wherein the elastic jacket is a rubber socket covering the tapered head, the socket having a formed feature of peripheral orientation in the socket wall and deformation occurs when the tapered
  - 25 surface of the tapered head is forced against the formed feature of the socket.
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4. The assembly of claim 1 wherein the retention housing is keyed to the threaded portion of the body using a key held in a key opening on the

housing, the key engaging a key slot in the body to prevent rotation of the housing about the body.

5 5. The assembly of claim 1 wherein the retention housing includes a retention cap and a gripping cup the cup gripping the inner surface of the retention cap to prevent inter-rotation of the components.

6. The assembly of claim 2 further comprising:  
a gas passageway extending longitudinally through the threaded  
10 body;  
a second threaded portion on the body; and  
a valve stem assembly threaded onto the second threaded portion;  
characterized in that gas is inserted into the vessel by way of the  
valve stem assembly and passageway through the sealed opening to  
15 maintain carbonation of liquid held in the vessel.

7. The assembly of claim 2 wherein the retention housing is keyed to the threaded portion of the body using a key engaging a key slot in the body to prevent rotation of the housing about the body.

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8. The assembly of claim 2 wherein the retention housing includes a retention cap and a gripping cup the cup gripping the inner surface of the retention cap to prevent inter-rotation of the components.

25 9. A method for sealing a vessel opening using a stopper assembly having a threaded body with a tapered head; an elastic jacket fitted over a portion of the body; a retention housing fitted over the body and jacket; and a turning nut attached to the retention housing and threaded to the body comprising steps of:

- (a) positioning the stopper assembly into the vessel opening;
- (b) holding the retention housing to stabilize body travel there through; and
- (c) turning the turning nut until the opening is sealed.

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10. The method of claim 9 wherein the elastic jacket is one of a rubber sleeve or a rubber socket.

10 11. The method of claim 9 wherein in step (a) the vessel opening and is void of threading or lip features.

12. The method of claim 9 wherein in step (b) the retention housing retains the elastic jacket and functions as a travel bed for the threaded body portion.

15 13. The method of claim 9 wherein in step (c) the amount of turning of the turning nut is constrained by a stop nut engaged on a second threaded portion of the threaded body.